

Appl. No. 10/064,412
Amdt. dated March 10, 2005
Reply to Office action of December 15, 2004

AMENDMENTS TO THE CLAIMS

1. (original) A writing method for CD-MRW comprising:
 - (a) obtaining data to be written to a CD-MRW substrate;
 - 5 (b) determining a write packet range of the data;
 - (c) identifying any defect blocks in the write packet range;
 - (d) identifying breakpoints in the write packet range based on the defect blocks;
 - (e) splitting the write packet range into at least two
 - 10 sub-ranges based on the breakpoints; and
 - (f) individually writing each sub-range.
2. (currently amended) The method of claim 1 wherein the sub-ranges comprises comprise:
 - 15 a continuous packet range located in a data area (DA), the continuous packet range having no defect blocks; and a defect packet range having a defect block; wherein different sub-ranges are processed by different writing procedures.
- 20 3. (original) The method of claim 2 wherein the continuous packet range further comprises:
 - a complete packet range having wholly continuous packets; and
 - 25 a partial packet range; wherein different continuous packet ranges are processed by different writing procedures.

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4. (original) The method of claim 3 wherein the writing procedure of the complete packet range comprises:

overwriting each packet of the complete packet range directly.

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5. (original) method of claim 3 wherein the writing procedure of the partial packet range comprises:

(a) reading an original partial packet;

10 (b) replacing corresponding write blocks in the original partial packet to generate a write packet; and
(c) writing the entire write packet back over the original partial packet.

6. (original) The method of claim 2 wherein the writing procedure 15 of the defect packet range comprises:

(a) reading a replace packet in a spare area (SA);

(b) replacing corresponding write blocks in the replace packet to generate a modified replace packet; and
(c) writing the modified replace packet back to the SA.

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7. (original) The method of claim 1 wherein the writing method further comprises:

25 identifying any SAs in the write packet range; and
identifying the breakpoints based on the SAs in the write packet range.

8. (original) The method of claim 1 wherein the breakpoint indicates a packet having a defect block.

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9. (original) The method of claim 1 wherein the breakpoint is an SA.
- 5 10. (original) The method of claim 1 wherein the breakpoint is a partial packet.
11. (original) The method of claim 1 wherein the breakpoint is a packet having a defect block.
- 10 12. (original) A reading method for CD-MRW comprising:
 - (a) determining a read block range of the data;
 - (b) identifying any defect blocks in the read block range;
 - (c) identifying breakpoints in the read block range based on the defect blocks;
 - (d) splitting the read block range into at least two sub-ranges based on the breakpoints; and
 - (e) individually reading each sub-range.
- 20 13. (currently amended) The method of claim 12 wherein the sub-ranges ~~comprises~~ comprise:
a continuous block range located in a DA, the continuous block range having no defect blocks; and
a defect block range having a defect block;
25 wherein different sub-ranges are processed by different reading procedures.
14. (original) The method of claim 13 wherein the reading

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procedure of the continuous block range comprises:

- (a) reading a block in the continuous block range; and
- (b) transferring data of the block to a host computer.

5 15. (original) The method of claim 13 wherein the reading procedure of the defect block range comprises:

- (a) reading a replace block in an SA; and
- (b) transferring data of the replace block to a host computer.